

This listing of claims replaces all prior versions and listings of claims in the application:

**Listing of Claims:**

Claims 47-56, 58-61 and 63 (canceled)

64. (new) A method of delivering a heterologous gene to target cells comprising:
  - a. introducing nucleic acid sequences into one or more cells of a subject to convert the cells into replication defective-viral particle-producing cells (producer cells), the introduced sequences comprising:
    - i. a first nucleic acid sequence encoding a replication defective retroviral vector, the vector comprising a heterologous gene and a defective retroviral genome lacking functional *env* and *gag-pol* genes;
    - ii. a second nucleic acid sequence encoding a functional *env* gene; and
    - iii. a third nucleic acid sequence encoding functional *gag-pol* genes;wherein the first, second, and third nucleic acid sequences are present on separate constructs; and
  - b. infecting target cells with replication defective-viral particles produced from the producer cells *in situ*, thereby delivering the heterologous gene to the subject's target cells.
65. (new) The method of claim 64, wherein said sequences are introduced *ex vivo*.
66. (new) The method of claim 64, wherein said sequences are introduced *in situ*
67. (new) The method of claim 66, wherein said introducing is into one or more subject cells *in vivo*.
68. (new) The method of claim 64, wherein said producer cell and said target cell are the same type of cell.
69. (new) The method of claim 64, wherein said producer cell is a non-dividing cell.
70. (new) The method of claim 64, wherein said producer cell is an immune cell

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    - ii. a second nucleic acid sequence encoding a functional *env* gene; and
    - iii. a third nucleic acid sequence encoding functional *gag-pol* genes;wherein the first, second, and third nucleic acid sequences are present on separate constructs; and
  - b. infecting target cells with replication defective-viral particles produced from the producer cells *in situ*, thereby delivering the heterologous gene to the subject's target cells.
65. (new) The method of claim 64, wherein said sequences are introduced *ex vivo*.
66. (new) The method of claim 64, wherein said sequences are introduced *in situ*
67. (new) The method of claim 66, wherein said introducing is into one or more subject cells *in vivo*.
68. (new) The method of claim 64, wherein said producer cell and said target cell are the same type of cell.
69. (new) The method of claim 64, wherein said producer cell is a non-dividing cell.
70. (new) The method of claim 64, wherein said producer cell is an immune cell.